

REMARKS

In response to the above Office Action, claim 1 has been amended for clarity to change “metallocene catalyst” to “metallocene complex,” support for which can be found, for example, on page 7, lines 1-5 of the specification. In addition, claim 1 has been amended to include the subject matter of claim 9, which has been cancelled.

New claim 34 is a combination of claim 1 and claim 10, and claim 10 has also been cancelled. Claims 35-46, dependent from claim 34, correspond to claims 3, 4, 6, 7 and 11-18, respectively. Finally, claims 19-33 have been cancelled.

In the Office Action, the Examiner rejected the claims under 35 U.S.C. §112, second paragraph for use of the phrase “metallocene catalyst,” maintaining it was not accurate in the context in which it is used. This has been changed to “metallocene complex,” so it is believed the rejection is now moot.

In addition, the Examiner rejected claims 1, 6, 7, 9-11 and 14-17 under 35 U.S.C. §102(b) for being anticipated by WO 00/15672 to Carnahan et al., hereafter WO'672.

Applicants' invention as set forth in claim 1 relates to a method for the preparation of a metallocene polymerization catalyst system in which the components of the system have been combined in a specific order, namely:

- (a) addition of the cocatalyst to the porous support,
- (b) addition of the polymerizable monomer, and
- (c) addition of the metallocene complex.

The Examiner refers to Example 2 of WO'672 believing it anticipates this feature of Applicants' claim. While perhaps former claim 1 may have been literally anticipated when considering the description on page 22, lines 20-24 of WO'672 and Applicants'

claims recited the addition of a metallocene “catalyst,” it is believed now that the claim has been clarified to recite instead the addition of a metallocene “complex,” that the claim is no longer anticipated.

In Example 2, an activated and supported metallocene catalyst is first prepared and only then is a polymerizable monomer, ethylene, combined with it. See WO’672, page 22, lines 6-23. In the slurry phase polymerization step, activator and silica may first be added to the reactor, then ethylene and then the activated and supported metallocene catalyst, but this is not the same as the claimed process where a monomer such as ethylene is added to a support and activator before the mixture is combined with a metallocene complex in the preparation of the catalyst. No polymerizable monomer is used during the catalyst preparation process set forth in the first two paragraphs of Example 2 of WO’672 as required by claim 1. Rather, the polymerizable monomer is first used after the catalyst has already been prepared. This is clear from the third paragraph of Example 2, where it recites that after the ethylene is added to the reactor, then the “catalyst” is added, which consists of not only the metallocene complex, but also the support and the activator. This is consistent with page 5, lines 8-10 of WO’672 where it teaches that “the subject invention further provides a polymerization process comprising contacting one or more addition polymerizable monomers . . . with a catalyst composition of the invention.” This relates to the main polymerization process and not to the preparation of the supported catalyst system.

In summary, there is no teaching in WO’672 of first combining a polymerizable monomer with a support and activator/cocatalyst mixture, before a metallocene complex is added thereto. Accordingly, it is not believed that amended claim 1 or claims 3, 4, 6,

7 and 9-18 dependent therefrom are anticipated by WO'672. Its withdrawal as a ground of rejection of the noted claims under §102(b) is therefore requested.

Regarding the rejection of claims 3, 12 and 13 under §103(a) for being obvious over WO'672 alone or in combination with Cady et al. (WO 97/44371), since these claims depend from claim 1 and Cady does not teach what is lacking in WO'672, it is believed they are patentable for the same reasons expressed above. Withdrawal of the rejections under §103(a) of these claims is therefore also requested.

Regarding the rejection of claims 19, 21-26 and 29-32 under §103(a) for being obvious over Andell et al. and claims 27, 28 and 33 over Andell et al., in view of either Cady et al. or WO'672, all of these claims have been cancelled, so the rejections are now moot.

The Examiner also rejected claims 1, 3, 4, 6, 7, 11 and 14-18 under §103(a) for being obvious over Chang et al. (U.S. Patent No. 6,184,170), hereafter Chang and claims 12 and 13 for being obvious over Chang in view of Cady et al. Now that claim 1 includes the subject matter of claim 9, and claims 3, 4, 6, 7 and 11-18 depend from it, it is believed these rejections are now moot. Withdrawal of the rejections of these claims under §102(b) and §103(a) is therefore requested.

As noted above, new claim 34 is a combination of former claim 1 and claim 10 with metallocene "catalyst" being defined as metallocene "complex." Since the Examiner also did not include claim 10 in the rejection based on Chang, it is believed claim 34 and claims 35-46 dependent therefrom are also patentable for the reasons expressed above.

Support for the amendment to claim 3 and new claim 35 can be found on page 5, lines 2-5 of the specification.

It is believed claims 1, 3, 4, 6, 7 and 11-18 and 34-46 are in condition for allowance.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: April 14, 2008

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